We claim:

1. A device comprising a layered device driver registration system in conjunction with an operating system device driver registration system, wherein the layered device driver registration system enables a user to associate a device driver with one of a number of device driver stacks and to configure the relative position of the device driver within the device driver stack.

2. The device of claim 1, wherein the layered device driver registration system comprises:

a driver file including a first key for the device driver, said first key including a driver name for the device driver and a library name indicating an administrative library for the device driver; and

a driver order file including a second key for the device driver, said second key including a driver name for the device driver and an ordinal value indicating the relative position of the device driver within the device driver stack.

3. The device of claim 1, comprising:

means for registering a device driver with the operating system device driver registration system;

means for associating the device driver with one of a number of device driver stacks; and

means for configuring the relative position of the device driver within the device driver stack.

4. The device of claim 1, wherein said device is a storage unit for operation in a computer storage system.

5. The device of claim 1, wherein said device is a storage processor for operation in a storage unit in a computer storage system.

6. A method of utilizing a device driver in a computer storage device, the method comprising:

registering a device driver with an operating system device driver registration system; and

registering the device driver with a layered device driver registration system.

7. The method of claim 6, wherein registering the device driver with the layered device driver registration system comprises:

adding the device driver to a driver list; and

specifying a relative position for the device driver within a device driver stack.

8. The method of claim 7, wherein adding the device driver to the driver list comprises adding a first key to a driver file maintained by the layered device driver registration system, said first key including a driver name for the device driver and a library name indicating an administrative library for the device driver, and wherein specifying the relative position for the device driver within a device driver stack comprises adding a second key to a driver order file maintained by the layered device driver registration system, said second key including a driver name for the device driver and an ordinal value indicating the relative position of the device driver within the device driver stack.

9. The method of claim 7, further comprising inserting the device driver at the specified relative position in the device driver stack.

10. The method of claim 9, wherein inserting the device driver at the specified relative position in the device driver stack comprises:

finding within the device driver stack an upper device driver above the specified relative position that is bound to a first device that is exported by a lower device driver below the

specified relative position;

suspending input/output operations for the device driver stack;

unbinding the upper device driver from said first device;

binding the device driver to said first device;

binding the upper device driver to a second device that is exported by the device driver; and

restarting input/output operations for the device driver stack.

11. The method of claim 7, further comprising removing the device driver from the device driver stack.

12. The method of claim 11, wherein the device driver stack includes an upper device driver bound to a first device exported by the device driver and the device driver bound to a second device exported by a lower device driver, and wherein removing the device driver from the device driver stack comprises:

suspending input/output operations for the device driver stack;

unbinding the upper device driver from said first device;

unbinding the device driver from said second device;

binding the upper device driver to said second device; and

restarting input/output operations for the device driver stack.

add a1
add b1